

# The State of New Hampshire

# Department of Environmental Services



#### Michael P. Nolin Commissioner

March 30, 2004 Letter of Deficiency DSP#04-021

Mr. Dirk R. Casagrande, P.E. 86 Old Mystic Street Arlington, MA 02474

RE: Wildlife Pond Dam #095.23, Goshen

Dear Mr. Casagrande:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on September 18, 2003. During this visual inspection and/or file review, the following deficiencies were observed:

- 1. The emergency spillway is not armored and is prone to erosion;
- 2. The pipe replacement work was conducted without permits from DES;
- 3. There was an active seep immediately to the left of the existing 15-inch CMP pipe at the downstream toe of the dam. The toe of the dam to the left of the outlet was generally wet; and
- 4. There is no operation and maintenance plan (O&M) on file with the DES.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

#### June 1, 2004:

- 1. Prepare and submit to the DES a written operations and maintenance procedure plan. The plan should describe the control of impoundment levels, monitoring and maintenance procedures, and identify emergency contact personnel. Refer to the enclosed guidelines;
- 2. Submit an as-built drawing of the outlet pipe replacement work that was completed in the fall of 2003. The plan must be stamped by a PE licensed in New Hampshire. Include with the as-built plan the following details:
  - a. Scaled cross section of dam through outlet, showing elevations, length of pipe, and watertight connections;
  - b. Extent of excavation required to install the new pipe;
  - c. Compaction specifications;
  - d. Gradation of material used to backfill the pipe trench;
  - e. Construction sequence;
  - f. Details of the inlet and outlet designs and downstream erosion protection at outlet;
  - g. Details on the extent of construction inspection that occurred during the installation.

Letter of Deficiency Dam#095.23/DSP#04-021 March 30, 2004 pg. 2

Once this plan is received a follow-up inspection will be conducted to verify the repair work.

## November 1, 2004:

3. Armor the emergency spillway channel to prevent erosion during storm events; and

## On a continuing basis:

4. Monitor the active seep that was noted to the left of the existing 15-inch CMP pipe at the downstream toe of the dam.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. Please call or write to our office if the repairs are completed ahead of the aforementioned schedule so that DES may schedule a follow-up inspection. Unless notified otherwise, DES will conduct the follow-up inspection on or after the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

As the result of this file review and inspection DES has determined that the hazard classification will be changed from a non-hazard AA dam to a minimum hazard A dam. This change in hazard classification will not affect the inspection schedule rotation of every six years. There will be an annual dam registration fee of \$100.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the bottom of the previous page.

II. MULLINE

Sincerely,

Dam Safety Engineer

Attachments Guideline for an O&M plan, DB13, Sketch Illustrating Deficiencies cc: Gretchen Rule

Town of Goshen

Certified # 7000 1670 0000 0585 9794

GEL/was/h:/safety/wendy/lod/095-23lod.doc